AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Previously Presented) A processor-implemented method comprising:

receiving a binary sequence of values, the values to be used in an application as a varying-radix sequence of values, the varying-radix sequence of values to represent bit distribution information for the binary sequence of values; and

generating the varying-radix sequence of values from the binary sequence of values via a radix unit executed by the processor, the radix unit to

        determine a number of positions for the varying-radix sequence of values,

        determine the maximum radix for the varying-radix sequence of values, the maximum radix based on a set of rules for the application,

        determine the remaining radices for the varying-radix sequence of values based on the maximum radix and the set of rules for the application, and

        determine a value for each position of the varying-radix sequence of values.

2-5.   (Cancelled).

6.   (Currently Amended) The method of claim 1 further comprising:

converting the varying-radix sequence of values into a decimal value;

converting the decimal value into an additional binary sequence;

transmitting the additional binary sequence and the number of positions **for the varying-radix sequence of values**;

restoring the additional binary sequence to the decimal value;

generating the varying-radix sequence of values from the decimal value and the number of positions; and

reconstructing the binary sequence from the varying-radix sequence of values.

7-16. (Cancelled).

17. (Previously Presented) A machine-readable storage medium that provides instructions, which when executed by a set of one or more processors, cause said set of processors to perform operations comprising:

receiving a binary sequence of values, the values to be used in an application as a varying-radix sequence of values, the varying-radix sequence of values to represent bit distribution information for the binary sequence of values; and

generating the varying-radix sequence of values from the binary sequence of values via a radix unit executed by the processor, the radix unit to

determine a number of positions for the varying-radix sequence of values,

determine the maximum radix for the varying-radix sequence of values, the maximum radix based on a set of rules for the application,

determine the remaining radices for the varying-radix sequence of values based on the maximum radix and the set of rules for the application, and

determine each value for each position of the varying-radix sequence of values.

18-21. (Cancelled).

22.   (Currently Amended) The machine-readable storage medium of claim 17 further comprising:

     converting the varying-radix sequence of values into a decimal value;

     converting the decimal value into an additional binary sequence;

     transmitting the additional binary sequence and the number of positions **for the varying-radix sequence of values**;

     restoring the additional binary sequence to the decimal value;

     generating the varying-radix sequence of values from the decimal value and the number of positions; and

     reconstructing the binary sequence from the varying-radix sequence of values.

23-25. (Cancelled).

26.   (Currently Amended) An apparatus comprising:

     a processor to ~~receiving~~ **receive** a binary sequence of values, the values to be used in an application as a varying-radix sequence of values, the varying-radix sequence of values to represent bit distribution information for the binary sequence of values; and

     a radix unit operatively coupled to the processor to ~~generating~~ **generate** the varying-radix of values from the binary sequence of values via a radix unit executed by the processor, wherein generating the varying-radix sequence of values includes

          determining a number of positions for the varying-radix sequence of values,

          determining the maximum radix for the varying-radix sequence of values, the maximum radix based on a set of rules for the application,

determining the remaining radices for the varying-radix sequence of values based on the maximum radix and the set of rules for the application, and

determining each value for each position of the varying-radix sequence of values.

27.   (Currently Amended) The apparatus of claim 26, the processor to further

convert the varying-radix sequence of values into a decimal value,

convert the decimal value into an additional binary sequence,

transmit the additional binary sequence and the number of positions **for the varying-radix sequence of values**,

restore the additional binary sequence to the decimal value,

generate the varying-radix sequence of values from the decimal value and the number of positions, and

reconstructing the binary sequence from the varying-radix sequence of values.

28.   (Previously Presented) The apparatus of claim 26, wherein the application includes a First In Last Out (FILO) stack and the binary sequence represents a sequence of operations on the FILO stack.

29.   (Previously Presented) The apparatus of claim 26, wherein the application includes a Multi-Pulse Excited Linear Prediction (MPELP) speed codec.

30.   (Previously Presented) The method of claim 1, wherein the application includes a First In Last Out (FILO) stack and the binary sequence represents a sequence of operations on the FILO stack.

31.   (Previously Presented) The method of claim 1, wherein the application includes a Multi-Pulse Excited Linear Prediction (MPELP) speed codec.

32.   (Previously Presented) The machine-readable storage medium of claim 17, wherein the application includes a First In Last Out (FILO) stack and the binary sequence represents a sequence of operations on the FILO stack.

33.   (Previously Presented) The machine-readable storage medium of claim 17, wherein the application includes a Multi-Pulse Excited Linear Prediction (MPELP) speed codec.